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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/550,640 | 04/14/2000 | Hiroyuki Kurokawa | 1134.1271-DIV/DMP | 9242 |

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EXAMINER

JERABEK, KELLY L

ART UNIT PAPER NUMBER

2612

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Fax of 1449 sent on 11/10/03

Office Action Summary

Application No.

09/550,640

Applicant(s)

KUROKAWA ET AL.

Examiner

Kelly L. Jerabek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 43-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 43-48 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/834,926.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 43 - 48 rejected under 35 U.S.C. 102(b) as being anticipated by Komiya
US 5,264,890.

Re claim 43, Komiya discloses "An autofocus apparatus (fig. 1) comprising: a photographing optical system having at least a focus adjusting lens disposed movably

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(25) and an image forming lens (26,29,30) for forming, into an image, light beams incident on said focus adjusting lens and emerging from an object”, see also Komiya (col. 3, lines 45-55).

“a plurality of focusing estimating devices for creating focusing data for focusing an image formed on a predetermined plane through said photographing optical system, upon the object (col. 3, lines 56-68);

a storage device stored with a correction value for the focusing data created by at least one of said plurality of focusing estimating devices (col. 4, lines 1-12);

a correcting device for correcting, with the correction value, the focusing data corresponding to the correction value stored in said storage device (col. 4, lines 8-12; fig. 1: 33);

a selecting device for selecting at least one of said plurality of focusing estimating devices,” (col. 3, lines 56-68; col. 4, lines 1-12).

“a moving device for moving said focus adjusting lens on the basis of the focusing data created by said focusing estimating device selected by said selecting device, or the relevant corrected focusing data if the relevant focusing data has been corrected by said correcting device” (col. 7, lines 37-40; fig. 1: 34 - 35).

Claim 44 includes all of the limitations of claim 43 but further includes a beam splitting element for splitting light beams incident on said focus adjusting lens and emerging from an object which reads on Komiya (col. 7, lines 8-19; fig. 1: 29).

Claim 45 recites "...a storage controlling device for storing said storage device with the data detected by said data detecting portion as the correction value when said first focus estimating portion creates the focusing data indicating that the image obtained by said first image forming lens is focused on the object on the first plane" reads on Komiya (col. 3, lines 56-63).

Claim 46 includes some of the limitations of claim 44, therefore the rejection for claim 44 can also be applied here. In addition, claim 46 includes:

"a first focusing estimating portion having a first imaging element for picking up the image obtained by said first image forming lens and converting it into an electric signal (col. 9, lines 53-61; fig. 1: 31a, 31b), a level detecting device for detecting a level of a proper frequency component from the electric signal obtained by said first imaging element (col. 10, lines 1-5; fig. 2: 37a, 37,b), and a first data creating device for creating an item of focusing data for focusing the image on said first imaging element upon the object on the basis of the frequency component level detected by said level detecting device" (col. 10, lines 6-11; fig. 2: 40).

"a second focusing estimating portion having an image re-forming optical system for respectively reforming, into images, the light beams passing through portions with different pupils among the light beams for forming the image formed by said second image forming lens, a second imaging element for picking up the images obtained by said image re-forming optical system (fig. 1: 29-30, 31a, 31b), a positional deviation

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detecting device for detecting an imaging positional deviation on said second imaging element (col. 2, lines 61-68), a storage device stored, as a correction value, with the imaging positional deviation detected by said positional deviation detecting device when the image on said first imaging element is focused on the object (fig. 4, 16a – 16c; col. 3, lines 1-30), a correcting device for correcting, with the correction value stored in said storage device, the imaging positional deviation detected by said positional deviation detecting device (col. 4, lines 3-12), and a second data creating device for creating an item of focusing data for focusing the image on said first imaging element upon the object on the basis of the imaging positional deviation corrected by said correcting device (col. 10, lines 6-11; fig. 2: 40);

a selecting portion for selecting at least one of said first focusing estimating portion and said second focusing estimating portion (col. 3, lines 56-68; col. 4, lines 1-12); and

a moving device for moving said focus adjusting lens on the basis of the focusing data created by said focusing estimating device selected by said selecting portion” (col. 10, lines 6-19).

Claim 47, see claim 45.

Claim 48 recites “...wherein said selecting portion selects said first focusing estimating portion if the imaging positional deviation detected by said positional deviation detecting device is under a predetermined value, and selects said second

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focusing estimating portion if larger than predetermined value" reads on Komiya (col. 2, lines 61-68; col. 3, lines 1-15). The MTF ratios mentioned in Komiya change in accordance with the distance to the object. Since these ratios are used for defocusing calculations it can be seen that focusing selection is dependent on positional deviation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kinba et al. (US Patent #: 5,597,999) discloses an auto focus detecting device comprising both phase-difference detecting and contrast detecting methods.

Ishida et al. (US Patent #: 5,212,513) discloses an AF camera system.

Itoh et al. (US Patent #: 5,097,282) discloses an automatic focusing apparatus.

Goto (US Patent #: 5,477,303) discloses a photographic device.

Suda (US Patent #: 5,678,097) discloses a focus-detecting device.

Miyadera (US Patent #: 5,619,260) discloses a still video camera performing white-balance and auto-focus adjustment concurrently.

Anderson (US Patent #: 5,745,175) discloses a method and system for providing automatic focus control for a still digital camera.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kelly Jerabek whose telephone number is (703) 305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached at (703)-305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

The fax number for submitting all Official communications is (703) 872-9306.

The fax number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at (703) 746-3059.

KLJ

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VULE
PRIMARY EXAMINER